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ABSTRACT

The purpose of a study was to analyze employers' secretarial skill requirements and the secretarial curriculum requirements of postsecondary proprietary business schools in the Harrisburg, Pennsylvania, area and to determine if and how the requirements differed. Data were gathered through a survey mailed to the 10 largest nongovernmental employers in the Harrisburg area and the four area proprietary business schools that offer a secretarial certificate program. The questionnaires were formulated by a panel of experts from outside the survey area. The results showed that all employers required a high degree of typing proficiency and some proficiency in recorded dictation skills. Half of the employers did not require shorthand. All employers required word processing skills, and most required computer skills in varying degrees. Other skills employers wanted included telephone communication, business mathematics, business English, and interpersonal competence. Employers also desired a positive attitude. The business schools required a high degree of typing proficiency, and many required shorthand skills. However, some of the business schools did not require word processing or computer skills. In addition, skill levels for various types of typing skills varied between the schools and the employers. Curriculum changes were recommended to bring the schools' requirements in line with those of the employers. Fourteen tables and a seven-page bibliography are provided. The appendixes include the survey forms and a sample course description for secretarial subjects. (KC)

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THE RELATIONSHIP OF POSTSECONDARY VOCATIONAL BUSINESS SCHOOL SECRETARIAL CURRICULUM TO THE SKILL REQUIREMENTS OF LOCAL MAJOR SECRETARIAL EMPLOYERS

CONTRACT NUMBER: 83-8008

Submitted to

the Pennsylvania Department of Education

by

Ruth M. Mott

June 1988

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CHAPTER I

INTRODUCTION

Rationale

One of the major issues facing the U.S. today is the impact of the emerging high technology. In The Third Wave, Toffler (1982) tells of changes in manpower requirements that have brought about a strong need for vocational education. The "factory school" philosophy may have been well suited to an industrial society, but we are moving forward in a technical and information sphere. Adult educators can make use of postsecondary education to help relieve unemployment and underemployment in our technological age. The U.S. Department of Labor (1986) says "With the changes taking place in technology, the labor market needs more responsive educational institutions to meet the demands of the next ten years and beyond."

Concern is growing regarding the quality and appropriateness of education and training that the U.S. workforce is receiving. From their studies, Mouton and Blake (1984) concluded that underlying many employment

problems is the inadequate preparation students receive from our educational institutions. King (1986) addresses this issue in saying, "High rates of unemployment and inadequate skill preparation have been key elements in the low growth of productivity and total output."

According to studies by a group of Harvard and MIT personnel, many of our recent approaches to education and training date back to the nineteenth and early twentieth centuries (Doeringer, 1981). Since that time, the skills and abilities demanded by the economy have undergone greater change than have our training arrangements. Moreover, our society's ambitions for what can be accomplished through education and training have also increased. Not only do we expect that such policies should meet the skill needs of the nation, but also we ask that they play a role in equalizing economic opportunity and in promoting greater well-being among workers. Therefore the previously mentioned research group suggested that a relevant question which should be asked is, "Where do private education programs not adequately meet the skill requirements of the economy?"

To meet the challenge for vocational education to decrease the number of unprepared students and help companies to procure more qualified workers, Jasso (1984) suggests establishment of a curriculum-related rapport between business schools and employers. Jasso, who is cited as a national personnel authority on corporation/education collaboration and is highly experierced with postsecondary proprietary training for clerical workers, states that businesses may soon have two choices: train employees after they are hired or become involved in local business education training programs before hiring them. The latter has proved much less costly than post-hiring training and yields the maximum use of resources for both business schools and employers.

Researchers at other institutions are making a similar recommendation. Oswalt (1985) stated that business education task forces should be developed at the postsecondary level to involve business leaders in curriculum decisions since they can play a major role in helping educators become more knowledgeable about skill needs as they relate to employment possibilities. A recent mid-western university study of training/employment relationships suggested that more research and evaluation of education programs, particularly postsecondary

vocational education programs, is needed to help the U.S. in its role in a post-industrial society (Minnesota University, 1986). Yet, according to The National Center for Research in Vocational Education (personal communication, August 1987), in regards to proprietary business schools,very little research has been done specifically in the area of postsecondary secretarial science vocational curriculum and its relationship to employment.

Significance and Purpose of the Study

Despite office automation, the number of secretaries in our country has increased to 4,059,000 according to the Bureau of Labor Statistics (1985). It is predicted that during the 1980's the employment openings for secretaries will increase faster than in any other occupation. Projections indicate there will be at least a 28.3 percent increase in secretarial jobs from 1980 to 1990 (Simpson, 1983).

However, research shows that only a small percentage of secretarial workers have the skills the automated office demands (Rivers, 1986). There has been little major change in the way secretaries performed their work or in the equipment they used until the 1970's brought word

processing and more change than in any other time in the previous 100 years (The Office of Technology Assessment, U.S. Congress, 1985). Today's high technology office often calls for secretarial knowledge of related equipment, particularly word processors and computers.

Postsecondary business educators are being urged to evaluate and update their business education programs. Hoyt (1985), former director of the U.S. Office of Career Education, emphasized this in an address delivered to the National Conference on the Future of Business Education. He stated that expected occupational changes need to be examined specifically in terms of their implications for business education curriculum. Speaking from a management point of view, Stout (1984) suggested that a prime way for business educators to stay current is to communicate with the companies who hire their graduates. They need to keep up with what business is doing and requiring of new employees.

Educators themselves are stressing that cooperative efforts between the private sector and the education community need to be increased in order to provide the most relevant education for employment possible. They agree with other researchers and writers that the benefits

from such efforts can include a better educated work force, higher productivity, and a stronger position for the U.S. in the world economy (Smiley, 1985).

One function of the postsecondary educational system is to prepare the work force to meet the nation's job requirements (Doeringer, 1981). Effectiveness in this area presupposes sound educational programs for developing marketable skills. However, in regards to secretarial training and employment, there appears to be a dichotomy in the area of postsecondary proprietary business education; business schools state that they are offering the secretarial curriculum an employer needs, but employers state that the schools are not providing a relevant secretarial program (Rivers, 1986).

Stoufer (1985) recommends that what content is added and what adjustments are made to existing curriculum should be decided by educators at the local level, based on contact with businesses within the community. On a local basis, if business schools were aware that they could more readily meet employers needs through specific secretarial training, they could be guided regarding curriculum changes. Through the development of an employer based curriculum guide, the schools might benefit through higher

placement statistics for their graduates and an improved reputation, which in turn may encourage an increased student enrollment. Ettinger (1982) stated that a closer relationship between the business community and business educators would help insure that students are pursuing prerequisites essential to successful job performance. Thus, students themselves would receive more effective use of their time and tuition money. Additionally, employers would have the benefit of a larger pool of skilled personnel from which they could recruit.

To summarize, the office environment is changing faster than ever before and a major ramification of this change is that it calls for reassessment of the skill requirements for office workers. It has been recognized that the secretarial work force will increase in the future and that additionally the skills required of secretaries is changing. These factors, along with the emphasis toward employer/school collaboration and local needs assessment, suggested that the training secretarial students are currently receiving needed to be investigated.

Therefore, the purpose of this study was to analyze the employer secretarial skill requirements and the

secretarial curriculum skill requirements of postsecondary proprietary business schools in the local area. In addition, if there was a difference in the employer/school skills relationship, the study identified the areas and extent of difference.

Statement of the Problem

Business employers have frequently stated that the secretarial training offered in business schools does not keep pace with the secretarial job skill requirements of business. Therefore, this study examined the current relationship between the skills an employer requires for secretarial employment and the secretarial curriculum offerings of postsecondary proprietary business schools, in a local geographical area. It specifically sought to answer the questions:

(a) In the greater Harrisburg area, is there a difference between the secretarial skill requirements of major employers and the skill requirements of the secretarial curriculum of postsecondary proprietary business schools?

(b) If so, in what area(s) does the difference lie?

(c) If so, to what extent is there a difference?

A null hypothesis was not developed because the research design was necessarily limited to a small population.

Limitations

The results of this study are applicable only to certain schools and employers in the stated geographical area; therefore, the following limitations apply:

1. The employer population was limited to the ten largest non-government employers in the greater Harrisburg area as identified by the Greater Harrisburg Area Chamber of Commerce statistics.

2. The school population was limited to the postsecondary proprietary business schools in the greater Harrisburg area that offer a secretarial certificate program. These schools are explained in detail in the Review of Literature section.

Definition of Terms

The following terms are used in this paper in the context stated below and, they are defined as discussed in literature relevant to the topic.

1. curriculum - specific subjects/courses offered at an educational institution

2. greater Harrisburg area - city of Harrisburg and surrounding area as described by the Harrisburg Chamber of Commerce.

3. major employer - non-government organization which employs the greatest number of personnel, in a specific geographical area

4. proprietary business school - educational institution which supplies a business training program, primarily for a profit

5. secretarial skills - those skills which are required to qualify a person for secretarial employment (and broadly include the capabilities to record and transcribe communications and to provide administrative support)

6. work force - manpower or personnel available for a task (employees)

Methodology

This study of the relationship between employer secretarial skill requirements and secretarial curriculum offerings included a survey of both local employers and postsecondary proprietary business schools. The population studied, the survey instruments used, and the procedures for data collection and analysis are briefly described in the following paragraphs. In addition, Chapter III provides more definitive information regarding methodology and the rationale for the selection of a small local population.

The employer population was limited to the ten largest* non-government employers in the metropolitan Harrisburg area which are:

1. AMP, Incorporated
2. Bethlehem Steel Corporation
3. Harrisburg Hospital Health Foundation
4. Harsco Corporation
5. Hershey Entertainment & Resort Company

*Greater Harrisburg Area Chamber of Commerce statistic

6. Hershey Foods Corporation
7. Hershey Medical Center
8. IBM
9. Kinney Shoes/Service Corporation
10. Pennsylvania Blue Shield

Government, as an employer, was not included in the survey because of the difficulty that might be encountered in securing reliable information from an organization with many diverse branches and because interviews with business school placement directors revealed that the majority of their graduates secured positions in non-government settings.

The school population included all postsecondary proprietary business schools in the greater Harrisburg area which offer a secretarial certificate program and are listed below.

1. Academy of Medical Arts & Business
2. Central Pennsylvania Business School
3. Palmer School
4. Thompson Institute

Two survey questionnaires were involved in this study. One surveyed the skill requirements of employers and was mailed with a cover letter to the Personnel Manager/Human

Resource Director at the previously mentioned ten major employers. (See Appendix A and Appendix B.) The other survey questionnaire was sent to the Directors of Education at each of the stated postsecondary proprietary business schools with a cover letter, surveying the curriculum offerings at each school. (See Appendix C and Appendix D.)

These questionnaires were formulated by a panel of personnel from outside the survey area on the basis of individual expertise regarding the topic. The panel included (1) a researcher familiar with developing survey documents, (2) a member of the Pennsylvania Department of Education who specializes in secretarial science curriculum, (3) a human resource director who regularly hires secretarial personnel, (4) a national consultant to postsecondary proprietary business schools, (5) a postsecondary secretarial science instructor, and (6) a director of a proprietary business school. Additionally, the questionnaires were reviewed by professionals in a field test, in both a postsecondary school setting and a business employment setting. These pre-survey reviews were conducted outside the actual survey location but in a similar geographic area.

A response procedure for both employers and business schools was used consisting of a cover letter (Appendix A and Appendix C), survey questionnaire (Appendix B and Appendix D), and postal card (Appendix E). Although the return survey questionnaires were anonymous, separately returned postal cards identified responding organizations. Those not responding with a postal card after a three-week period were sent a follow-up letter (Appendix F).

As questionnaires returned, there was a recording of responses and tabulation of results. Descriptive statistical techniques (including frequency distributions and percentage and mean calculations) were used to evaluate the responses and to present the results.

Product of the Study

A sign of our times is the need for a more effective response by educational institutions to meet employer requisites. The data generated from this study was used to assess the present major employer-business school relationship in the greater Harrisburg area. Results from this study can be used to assist business education

programs in meeting actual secretarial employer needs. Other possible future contributions of this study include:

1. The development of a survey questionnaire format which can be implemented in other geographical locations to study the local relationship of major employers and proprietary business schools.

2. A pilot program to form a task force (council, panel, committee, etc.) of representatives from local major employers and proprietary business schools to develop a new dimension of rapport regarding curriculum development.

3. Provision of relevant written guidelines for business school directors to use in curriculum review and restructuring.

4. General improvement in the qualitative adequacy of the secretarial labor force in the greater Harrisburg area.

5. Entrance of the study into a national vocational education network, such as The National Center for Research in Vocational Education, for further use and dissemination.

In summary, the rapidly changing work environment of the office calls for reassessment of the skill requirements of office workers. In addition to the prediction that the secretarial work force will increase in the future, the skills required of secretaries is changing. Research relevant to a closer collaboration of employers and business educators has been suggested, particularly regarding employment skills. The purpose of this study was to investigate the relationship of the secretarial skill requirements of major employers and the secretarial curriculum skill requirements of postsecondary proprietary business schools, in a local geographical area.

CHAPTER II

REVIEW OF LITERATURE

This chapter presents information from the research of literature regarding work force skill requirements and related training. Factors which relate to secretarial curriculum and employment were emphasized. Both manual and computer-assisted searches were carried out with main data bases being ERIC, the Business Education Index, and Dissertation Abstracts International. Information was gathered from Paley Library at Temple University, Ganser Library at Millersville University, Heindel Library at Pennsylvania State University, Zug Library at Elizabethtown College, Lehman Memorial Library at Shippensburg University, and the State Library of Pennsylvania in Harrisburg.

Background

Some futurists have been documenting megatrends which they claim signal a shift from the industrial age to the information age. According to Nasbitt (1982), about 65% of work handled at the work place is performed by personnel creating and processing information. An notable characteristic of this new information age is that

the number one occupation is clerk and not blue collar worker. Application of electronic technology will permeate the organization and include the automation of the office. Nasbitt goes on to say that as the twenty-first century approaches, the business sector and the education community will need to explore avenues of greater cooperation in developing an appropriately educated workforce.

A simplistic model of the impact by science and technology on the office perhaps does not exist; data processing as it was known to the clerical labor force during the early part of this century has been technologically taken over on a scale that may have appeared inconceivable a generation ago. In the Office of the Future (Uhling, Farbert, & Bair, 1979), it is stated that the number of computer-based terminals is in the millions and rapidly increasing, and our secretarial/clerical work force is still growing in numbers and skills. New office tools and services inevitably replace existing ones. An example of this can be seen in personal writing instruments--we have advanced from the goose quill pen to the steel pen to the fountain pen to the ball point pen. The following page offers a timetable of the evolution of some office equipment and the increase in secretarial employment.

NUMBER OF SECRETARIES INCREASE DESPITE OFFICE AUTOMATION

Year	Employees	Office Technology
1870	154 stenographers typists	Typewriter Carbon Paper
1880	5,000 stenographers typists	Mimeograph machine Adding machine Pneumatic tubes
1890	33,418 stenographers typists	Dictating and Stenographic machines
1900	112,364 stenographers typists	Two-color typewriter ribbon Addressograph
1910	316,693 stenographers typists	Bookkeeping and billing machines
1920	615,154 stenographers typists	Ditto machine Automatic feed machines
1930	811,190 stenographers typists	Electric typewriters Dial telephones
1940	1,174,886 stenographers typists secretaries	Plastic belt dictating and stenographic machines
1950	1,580,010 stenographers typists secretaries	Data processing-telewriters Xerographic duplication
1960	1,464,000 secretaries	Magnetic tape typewriters Microchip computers
1970	2,705,000 secretaries	Microcomputers Word processors Facsimile machines
1980	3,875,000 secretaries	Software packages Integrated network systems

Note: Originally typists/stenographers handled much secretarial work. However in 1960, the Bureau of Labor Statistics began counting secretaries separately from stenographers and typists.

Source: Bureau of Labor Statistics, Department of Labor, 1985

Technology is rapidly changing the nature of work in all sectors of the economy. Olefish (1984) believes that one way to measure the impact technology will have on employment is to focus on occupations rather than industries. An employee may be in a low technology industry but in a high technology occupation (one that he describes as requiring an intensive knowledge of a particular technology). The increased use of technology is likely to have a widespread effect on the skill requirements of existing jobs. This in turn can mean a change in the training required to function effectively in some types of office employment such as secretarial work. Researchers at the Bureau of Labor Statistics (1985) expect that the emerging technology will change some formerly low skill jobs into jobs requiring a higher level of skill and knowledge. For example, the job of secretary has been upgraded substantially by the addition of word processing equipment and computers to offices. Therefore, secretaries will find more complicated jobs, and the education establishment must prepare for this necessity (Odden, 1983). Changes need to be considered for secretarial curriculum in order for students to gain relevant exposure and be ready for the marketplace. Business educators are being told "if schools want to have a role in preparing students for careers in our high

technology world, they must develop programs that provide the necessary knowledge and skills" (Hague, 1986).

This area of a training/employability relationship is not a new concern. Over a decade ago, the American Management Association (AMA) was saying:

> It is readily accepted that training must keep abreast of changes in worker qualifications necessary for effective employee performance. Most will argue that training will not be as effective as it should be unless it results from a study of work (as it is now conducted and how it will be conducted in the years ahead) and unless such a study be translated into worker requirements needed for effectiveness and be implemented by applicable training concepts and methodology (Bienvenue, 1969).

It is important to analyze the kind of work and qualifications demanded by the changing environment and how this can effect training. One way to view training effectiveness is from the standpoint of meeting occupational skill requirements. Hoyt (1985) says that business educators need to think clearly about the implications of occupational change for educational change, and that they should examine certain expected office occupational changes primarily in terms of business education. One commonly accepted source of predictions of

occupational change is the Occupational Outlook Handbook prepared by the U.S. Department of Labor. The 1984 publication of this guide predicted that the civilian work force will grow from 110 million persons in 1982 to 131 million by 1995--a 19% increase. Furthermore, women will account for nearly two-thirds of the labor force growth during this period with many of them involved in a secretarial occupation. Consideration should be given to the fact that secretarial occupations will not be eliminated due to a high technology environment, but technology will change the skill requirements for secretarial employment. The Occupational Outlook Handbook (U.S. Department of Labor, 1984) states that employers will expect new secretarial workers to possess specific vocational skills and that job prospects are predicted to be excellent for secretaries with strong typing, shorthand, and word processing skills and such personal qualities as organizational ability, good judgement, and initiative.

Curriculum

Recent economic and technological changes, as well as the very nature of work, have forced business institutions to redirect themselves, and the education community is

advised to offer a curriculum that responds to specific employer needs and goals. Curricula now in use appear inadequate with frequent on-the-job training necessary to supplement business school programs (Simpson, 1983).

The 1980's continue to bring new challenges to postsecondary business education programs. One of these is the consideration of accommodating new, essential subject matter into a sometimes already content-laden traditional curriculum. One possible solution to this situation requires business education departments to restructure their curriculum offerings. A study by Meiss (1985) revealed that some secondary business education departments were starting to drop certain courses from the bona fide business education department and were transferring some courses to other areas of focal interest.

In a study of National Association for Business Teacher Education (NABTE) member schools, Lewis and Freeman (1987) found that the most common recent secretarial course deletions included beginning shorthand, advanced shorthand, and calculating machines. This NABTE study also revealed a relationship between shorthand courses

deleted and word processing courses added, with 61 shorthand courses dropped and 35 word processing courses added by the same departments. Lewis and Freeman felt that this reflected the changing nature of offices where word processors are now used to accomplish what was once done using shorthand.

Subject matter selection can be a critical factor to the success of a professional secretarial program (Eiken & Gorman, 1984). In designing programs for the postsecondary level, some questions come to mind. What should be included in the curriculum and how should it be taught? In providing tentative answers to these questions, Hague (1986) suggested the need to carry out a two-faceted study in which employers and business schools were asked for input. Such a survey would offer the local business sector an opportunity to suggest practical skill requirement courses for the curriculum. It would offer business schools help in identifying appropriate curriculum content which may not be adequately covered locally in current business school programs. For instance, secretarial training needs to include such information age technical skill areas as word processing and computer literacy (American Society for Training and Development, 1986). What is being done about this in the local area

needs to be studied to assure that postsecondary schools are effectively trying to meet the secretarial skill requirements for employment with area businesses.

The following is from a statement by the Policies Commission for Business and Economic Education (Business Education Forum, 1983):

> Technological advancements continue to contribute to environmental changes in the office. These advancements result in more efficient methods of processing information with word processing a component of information processing. Thus, word processing instruction is necessary in the business education program and courses should be offered to provide for occupational preparation. Postsecondary instruction can include not only basic level courses but advanced word processing application. It is imperative that business education keep pace with the technology being used in businesses, and it is essential to have up-to-date word processing equipment so that students may acquire employable skills.

It appears that today's business education programs must change in order to accommodate the impact of high technology on the field; instruction in such areas as word processing and computer applications is necessary in secretarial programs.

Stout (1984) indicates that business and education can serve as natural partners in progress; the bottom line of

business is a direct reflection of the people who came from educational institutions. To keep students current, these institutions should stay updated on business and incorporate the information into their teachings. Oswalt (1985) stresses that business educators can no longer afford to have a "typing pool" mentality and dwell only on the needs for typing and shorthand. While new secretarial employees usually have good typing skills, they often don't have an understanding of technology, according to some employers.

Because of the rapid rate at which the office is changing, some observers say that one of the implications for business educators is that students must be prepared for the inevitable discontinuities they will face in their work environment. Oliveria (1985) discusses some key objectives regarding traditional teaching of secretarial science courses and the change needed to meet today's employer demands. She makes the following suggestion as an instance of the necessity for changing of objectives: Instead of teaching a specific skill, instructors should teach how to learn the skill. For example, the teacher must focus on how to perform the word processing function more so than how to use a specific word processor which is on hand at a school. The students will then have a

knowledge of a process which is useful in an environment where a different brand of word processing equipment is installed.

Stoufer (1984) agrees with this in saying that it is up to the postsecondary business school to lay the groundwork for understanding and to give students the tools for their additional learning in the workplace. She states that although in-depth training on specific word processors and computers is not mandated, application ability and general knowledge of basic concepts, terminology, and equipment are. Ettinger (1981) suggests that two general word processing skills to be stressed in a curriculum are keyboarding and copy editing. Although businesses usually have time to teach new employees the operation of the specific brand name equipment they use, the employer cannot rapidly and thoroughly teach overall word processing and computer concepts. Business educators can lead up to this by teaching general theory--basic conceptual knowledge of word processors and computers. If important concepts are understood, the physical properties of specific hardware can be taught along with the policies and procedures of individual companies.

The ability and willingness to provide appropriate education and training facilities for corporate America is one of the opportunities available to postsecondary educational institutions in the next decade (Moser, 1986). Simply using equipment or curriculum currently on hand at an educational institution may not suffice. When thought is given to developing required worker qualifications, training and curriculum come into play. Studies suggest the development and implementation of concepts to integrate employer-specific "education for work" capabilities into a postsecondary business school curriculum. For instance, Eiken & Gorman (1984) recommended using such a two-sided approach and discussed an educational program that can serve as an informal "feeder program" for jobs in local businesses. This type of approach permits a high degree of responsiveness to the emerging needs and demands of the secretarial employment market. Timely subjects can be accommodated when structuring curriculum for secretarial science students, and perhaps less relevant subjects can be eliminated or decreased in emphasis.

However, a haphazard or unresearched approach is to be avoided. Lane, Harpell, & Mansoun (1986) emphasized that

an integrated and dynamic approach to curriculum design/redesign is required in order to bridge the gap between what is being taught in academic institutions and what business and industry require from graduates. One way to achieve this is through a well constructed survey questionnaire type of research project. Meiss (1985) states that the value of such a survey is in revealing what the present situation is and where current weaknesses appear. Timeliness is another factor to consider. Curriculum materials must reflect the latest technologies, and they must not spend so much time in development that they are already obsolete when implemented (Pierce, 1985).

Part of a secretarial science curriculum should include hands-on training with equipment which can be justified in terms of job outcomes and accountability to the business community. Devin (1983) noted that the job market in any metropolitan area at the present time warrants hands-on equipment training which is designed to meet that market, this being especially true in postsecondary education. A secretarial science curriculum study by the North Carolina State Department of Education (1979) stated that speed requirements should be based on the requirements of <u>local</u> employing companies through contact with their personnel departments. In general, a business school's secretarial

program should be based on the market opportunities available for its graduates. Eisenhour (1985) discusses this from the perspective of a director of a postsecondary proprietary business school. She states that each such school should design a program around the job requirements in the school's own geographical area. To illustrate the satisfaction of local job market needs, Eisenhour gives the following example. A school in a well-populated metropolitan area might have a curriculum focusing heavily on the latest local industry equipment, whereas a school in a rural area would likely have to provide a variety of equipment and give the students a much broader base, for employment in their more dispersed geographical area.

Another study regarding postsecondary secretarial science curriculum at a business school showed that there appears to be a trend toward business measurement of secretarial word processing, with typing (keyboarding) being a major skill requirement (Fairchild & Gilligan, 1982). This measurement aspect of word processing has implications for the curriculum in a secretarial science program. For example, a secretary in a word processing office may be required to type 70 words a minute and produce a one page letter in a certain amount of minutes. Devin (1983) therefore believes students should be trained to work under pressure and measurement. It was suggested that

the these word processing skills be incorporated into the curriculum: rapid document production to include editing and punctuation (one letter every ten minutes from rough copy). The goal should be to produce mailable letters, forms, manuscripts, etc. which often evolve from unarranged drafts or dictated material. Such work requires thinking and planning skills and may require rapid production.

The following sample provides an example of the secretarial curriculum which is offered by local postsecondary proprietary business schools. This example is a composite of the curriculum offerings of the schools involved in this survey. Appendix G provides more detailed information on this curriculum.

Sample Curriculum for
Secretarial Science Certificate Program

Beginning Typewriting
Intermediate Typewriting
Advanced Typewriting
Shorthand or Speedwriting
Machine Transcription
English I & II or Business English
Business Math
Word Processing

In general, 60 class hours are required for each of the above subjects, and the length of the secretarial program lasts from six to nine months at the various schools.

Wentling (1987) suggested going beyond the technical skills required in a secretarial science curriculum. She stated that "employability" skills such as good verbal communication, willingness to follow directions, and flexibility should also be emphasized. Wentling further suggested the addition of a supervised work experience course as a mandated part of a business education curriculum so that students would be offered the reality of the work place.

Employer/School Relations

The capacity of the educational establishment to respond to the faces of change from an industrial age to an information age will determine in a large part the quality of life in the United States as the twenty-first century unfolds (Temposky, 1987). This is one reason that employer/school relations need to be studied and improved.

If the ties between business and education could be mutually beneficial, why are the two entities not working together more closely? The reasons (for what appears to

be a natural linkage) have been investigated by educators and members of the business community. Moser (1986) says there is a predisposed posture adopted by business and industry that academic institutions emphasize theoretical rather than practical applications. Other reasons include the fact that some companies don't realize the direct relationship between skills and training (McCormick, 1983). Also, members of the corporate community perceive that educators have not been on the cutting edge of technology. In a joint study sponsored by both a state department of education and a large private business organization, Oinonen (1983) found that the needs of business and industry appear to be outdistancing schools in their work preparation role. Business and industry have usually been technologically ahead of the schools.

Kagan (1986) states that management has often dealt with the labor market secretarial shortage by lowering hiring standards. However, business is increasingly finding that lesser quality candidates cannot meet the demands of the new technology secretarial position, especially where sophisticated equipment is used. This can put a responsibility on proprietary business schools to change some of their methods of curriculum formation.

Business schools may be using existing secretarial curriculum because it was based on the minimum state licensing requirements; they may have added to it by using perceptions of staff members or informal contact with a few employers (Ettinger, 1982). Additionally some curriculum is designed around readily available resource materials--such as a branch proprietary school using the curriculum developed by a larger parent school located in a different geographical area.

According to Doyle and Levin (1988), historically business has adjusted to the skill levels that graduates bring to the job, but such accomodations have lead to increased costs and reduced productivity. Thus, they stated that it is now essential for schools to respond to the needs of employers, and that successful strategies for employer/school relationship changes should be identified because the long-term economic health of the nation is at stake. When business specifies its employment needs, a logical step is to establish educational standards that meet these needs.

The results of a study by Bloomer (1985) indicated an intensity for the development of understanding between education and business, and that it needs to be a two-way

process. It was suggested that an internship program is one way to improve the linkage of the two groups. From such a program students gain a better understanding of work in their chosen career field. The school staff, through making contact with employers, gains further knowledge about what is currently happening in the actual work world. Bloomer found that businesses participating in internship programs usually were willing to become more involved with the schools and with curriculum guidance. Wentling (1987) also stated that this type of business education partnership should be encouraged for all business education students, and the benefits should be shown to employers, educators, and students.

Personnel and human resource directors can have access to more readily trained applicants by forming training partnerships or curriculum based relationships with local schools (Moser, 1986). These programs can also contribute to the independence and self respect of students by equipping them with job skills needed in local communities. Jasso (1984) feels that the challenges posed by today's job skills appear to be too complex for any one entity to solve single-handedly. Without a cooperative effort for change, the situation could result in the following negative outcomes for three sectors of our

population: inferior programs in schools, dissatisfied and unprepared students, and companies who cannot find qualified applicants.

Postsecondary business education programs will increasingly be needed as technological advances come about. According to the Bureau of Labor Statistics (1985), the following finding was reported: Of the twenty-five occupations with the largest number of people utilizing private postsecondary vocational training, secretaries ranked number two. The future of secretarial science business education at the postsecondary level looks bright and can move toward using technology to improve the quality of work life for graduates. The development or increased use of employer/school related curriculum planning can make a contribution to this.

In summary, a review of relevant literature revealed that technology is rapidly changing the nature of work in all sectors of the economy, and that as we enter the information age, technology will permeate the work environment of the office. This increased use of technology is likely to have a widespread effect on the

skill requirements of existing jobs. Secretaries will find more complex positions requiring word processing and computer knowledge. The number of secretaries in our country has increased despite office automation, and their numbers is expected to continue to increase. Thus, secretarial occupations will not be eliminated due to a high technology environment but the nature of their jobs will change.

It was stated that the business sector and the education community will need to explore avenues of greater cooperation in developing an appropriately educated workforce. Business educators are urged to offer a curriculum that responds to specific employer needs and goals. In many cases this will involve investigating local employer skill requirements and then restructuring present curriculum to meet these employer requirements.

One way for postsecondary proprietary business schools to achieve a curriculum more relevant to employer needs is through increased business and education collaboration. The implementation of a survey project was suggested to investigate the secretarial skill requirements of local employers. Some researchers have found that it was

necessary to delete certain skill requirements from the secretarial curriculum, such as shorthand, and to add others such as word processing and computer skills.

It has been predicted that postsecondary business education programs will increasingly be needed as technological advances come about. The development of or increased use of employer/school related curriculum planning can make a contribution to providing more qualified employees.

CHAPTER III

METHODOLOGY

The research design for this study consisted of an introduction to the problem, a review of related literature, a survey questionnaire method of data collection, and a descriptive statistical analyis of survey results. The following paragraphs describe in detail the population that was studied, the instrumentation that was used, and the procedures that were implemented in data collection and analysis.

The intent of this study was to determine if a relationship exists between the secretarial skill requirements of employers and of postsecondary proprietary business schools, in the greater Harrisburg area. It specifically sought to answer the following questions:

1. In the greater Harrisburg area, is there a difference between the secretarial skill requirements of major employers and the skill requirements of the secretarial curriculum of postsecondary proprietary business schools?

2. If so, in what area(s) does the difference lie?

3. If so, to what extent is there a difference?

Due to the small population size, it was not feasible to develop and test a null hypothesis. Therefore descriptive statistical techniques were used to evaluate the survey results and to present the findings.

Selection of the Population

A local area was selected for the study because graduates of postsecondary proprietary business schools usually seek employment in the same geographical location in which they received their training, as indicated in interviews with placement directors at local schools. In addition, vocational education philosophy infers that programs should be responsive to the local employment situation. Therefore local employers and business schools were selected to be surveyed.

Since the core purpose of this study was to investigate the employer/school relationship on a local basis, it was

necessary to survey only the school population located within the geographical area of the study. This resulted in a population of four postsecondary proprietary business schools.

The Greater Harrisburg Area Chamber of Commerce, provided the most recent statistics as to who were the major non-government employers in the area, and ten were identified. All ten each employ 2,000 or more full-time workers. These major employers, combined, provide thousands of secretarial positions, and they serve as the forerunners in secretarial skill and equipment requirements. The Chamber of Commerce considers these employers as representative of secretarial employment opportunities in the area. These employers and the greater Harrisburg area postsecondary proprietary business schools who offered secretarial certificates comprised the survey population.

Instrumentation

A survey form (see Appendixes B and D) called the Skills Survey Questionnaire (SSQ) was developed for this study, through a panel of experts in the field. It was used to

investigate secretarial skill areas which were identified as having importance to the study. The specific skills listed on the survey questionnaire were selected because they were skills which are characteristically expected in secretarial performance as revealed by a literature search, an informal survey of employers, and a review of business school catalogs. The skill items reflect the multidimensional degree of secretarial work. Prior to finalizing and distribution, the SSQ was reviewed outside the local geographical area by an advisory group of administrators in postsecondary business education programs and personnel directors who screen and employ secretaries. Modifications in the survey form were made according to suggestions from this group in order to provide clarity and relevancy.

The survey questionnaire was used for both segments of the population with minor changes in wording to make one instrument applicable to employers and one applicable to business schools. To allow for more expansive responses, the survey form was composed of two parts, Part A and Part B.

In Part A of the survey, each question was worded so the answers would provide basic information which could be

tallied to reveal whether or not there was a difference in employer and business school skill requirements. Specific secretarial skills were listed on the questionnaire along with a scale of degree of proficiency required. This Likert-type scale used these response categories: "high", "average", and "low" degree of proficiency, and skill "not required." Respondents were asked to check off their requirements for the specific secretarial skills listed according to the proficiency scale. There was also a section under each skill area entitled "other" where employers and business schools could add skills they required but which were not listed in the preceding section.

Part B of the survey questionnaire asked respondents to write in (self-report) short answers to two questions regarding secretarial skills and curriculum. This part offered both employers and business schools a section for "free lance" writing in regards to specific subject matter. The content of the questions in Part A and Part B were similar for both employers and schools but gave each a chance for input from their individual perspectives - training and employment.

Data Collection and Analysis

Data for this study was obtained by mail utilizing a self-administered questionnaire form for the two groups of the survey population. The business school survey questionnaire (Appendix D) contained questions regarding the secretarial curriculum skill requirements of the surveyed school. The employer survey (Appendix B) asked similar questions regarding the skill requirements for employment as a secretary with the surveyed business establishment. A cover letter (Appendixes A and E) sent to both segments of the population explained that the survey was anonymous. Respondents were asked to not identify themselves on the survey form; however, they were asked to separately return a postal card (Appendix E) which identified the responding organization.

Data collection was initiated with the mailing of a survey questionnaire packet which included a cover letter, survey form, return envelope, and return postal card. This questionnaire packet was mailed to the Personnel Manager/Human Resource Director of employers and to the Director of Education at proprietary business schools. The mailing was sent out late in the week so expected arrival was toward the beginning of the following week. Because the returned postal cards indicated who filled in and mailed back the survey questionnaires, it was possbile

to check off respondents on a chart as the postal cards returned. Survey recipients who had not responded after a three-week period were sent a follow-up letter (Appendix F).

Survey questionnaires were mailed to the ten major employers in the greater Harrisburg area. Eight of these original surveys were returned, and those who had not responded were sent a follow-up letter. One hundred percent of the employer surveys were eventually returned. Survey questionnaires were also mailed to the four postsecondary proprietary business schools in the greater Harrisburg area who offered a secretarial certificate program. One hundred percent of these were returned, with no follow-up being required.

After all responses had been received a procedure for the recording of responses and tabulation of results began. Data from the returned surveys was organized according to the skill items (variables) on the survey questionnaire. This involved the development of two similiar items--a simple frequency distribution for responses to the employer survey and another simple frequency distribution for business school responses. Information was tabulated and totaled to determine the number of secretarial employers and the number of business schools requiring each degree of proficiency for the listed skills.

These frequency distributions were used for tallying the responses to the items in Part A of the SSQ. Part B answers resulted in a limited frequency distribution with a listing of items presented by the respondents and a check for each time an item was reiterated.

The total frequency with which each proficiency was required was converted into a percentage for use in summary tables. The results described the percentage of respondents who required a particular proficiency for a specific secretarial skill. The mean degree of proficiency was also calculated for each skill area, with a separate breakdown for employer and business school requirements.

Analyses included the comparison of the results of the employer survey responses with the results of the business school survey responses. A comparison was also made of the survey results with the survey results of related studies. The above mentioned descriptive statistical techniques (frequency distributions, percentage conversions, and mean calculations) were used to evaluate the responses and to present the results.

The methodology for this study was basically descriptive in nature and nonexperimental in design. A mail survey questionnaire was used to gather data from a small, specific population. The results of the data from the returned surveys were used for analysis and presentation of findings.

CHAPTER IV

FINDINGS

This study was carried out to determine the difference between the secretarial skill requirements of employers and the secretarial curriculum skill requirements of postsecondary proprietary business schools, in a local geographical area. Mail survey questionnaires were used to gather data (see Appendix B and Appendix D). The survey questionnaire form, called the Skills Survey Questionnaire (SSQ), was mailed to a survey population composed of major employers and proprietary business schools, located in the greater Harrisburg area. The findings discussed in this chapter are based on responses taken from the survey questionnaires, of which one hundred percent were returned. Descriptive statistical techniques were used for analysis as necessitated by the research design.

The survey questionnaire form was composed of two parts. Part A asked respondents to check off answers, and Part B asked for written input regarding secretarial skill requirements. In Part A of both the employer survey and

the business schools survey, specific secretarial skills were listed on the questionnaire along with a Likert-type scale of degree of proficiency required. This scale included "high", "average", and "low" degree of proficiency, and "skill not required." There was also a section under each skill area entitled "other" where employers could add skills they required for secretarial employment but which were not listed in the preceding section. Respondents were asked to check off their proficiency requirements for the specific secretarial skills listed. In Part B of the survey questionnaire, respondents were asked to write in (self-report) answers to two questions regarding secretarial skills and curriculum.

The population consisted of two groups: local major secretarial employers and postsecondary proprietary business schools who offered a secretarial certificate program. Data collection involved the mailing of a survey questionnaire packet which included a cover letter, survey form, return evelope, and return postal card. Survey questionnaires were mailed to the ten major employers and to the four postsecondary proprietary business schools in the greater Harrisburg

area. One hundred percent of surveys mailed to both groups were returned.

After all responses had been received, an analysis procedure began. This involved the development of two frequency distributions--one for employer responses and one for business school responses. Information was tabulated and calculated to determine the number of secretarial employers and the number of business schools requiring each degree of proficiency for listed skills. Data from these frequency distributions was then translated into Tables 1 through 12. The total frequency with which each proficiency was required for each secretarial skill was converted into a percentage for the tables. The results described the percentage of respondents who required a particular proficiency for a specific secretarial skill.

Further analysis involved a comparison of major differences in proficiency requirements between employers and business schools as shown in Table 13. In addition, a mean was calculated for the proficiency requirements of each skill for both employers and

business schools. The results of these proficiency means are shown in Table 14.

Results of Employer Responses

The survey questionnaire listed specific typing skills along with a scale of degree of proficiency which employers could check off according to their requirements for each skill. Table 1 shows that 100% of employers required a high degree of proficiency for typing letters and memos. In addition, a majority of employers required a high degree of proficiency for typing from handwritten copy (80%), statistical typing (80%),and proofreading completed work (90%). While 60% of employers required a high degree of proficiency in typing manuscripts, 20% did not require this specific skill, and 10% each required an average degree and a low degree. All employers required skill in typing forms, with 50% requiring a high degree of proficiency and the remainder of employers requiring low to average proficiency. The only typing skills reflected under the fill-in category of "other" showed 10% of employers requiring high proficiency in typing research reports, with the majority of employers (90%) not mentioning that they required this skill .

Table 1

EMPLOYERS REQUIRING
EACH DEGREE OF PROFICIENCY
FOR SPECIFIC TYPING SKILLS

Skill	High Proficiency	Average Proficiency	Low Proficiency	Not Required
Typing letters and memos	100%	-	-	-
Typing manuscripts	60%	10%	10%	20%
Typing forms	50%	30%	20%	-
Typing from handwritten copy	80%	20%	-	-
Statistical typing	80%	10%	10%	-
Proofreading completed work	90%	-	10%	-
Other typing: research reports	10%	-	-	90%

The survey questionnaire also requested information about the typing speed that employers required of their secretarial employees. Sixty percent of employers required a speed of 70 words per minute. Twenty percent of employers required a typing speed of 60 words per minute; the remaining 20% required a speed of 50 words per minute.

All employers required some proficiency in recorded dictation skills. Table 2 shows that the majority (80%) of employers required a high degree of proficiency for both typing from recorded dictation and determining layout of finished product. The remainder of employers required low (10%) to average (10%) proficiency for these two specific skills.

Employer skill requirements for shorthand ranged from not required to an average degree of proficiency. The employers' degree of proficiency requirements were exactly the same for the two specific areas of shorthand: taking shorthand notes from verbal dictation and transcribing shorthand notes into final product. As

Table 2

EMPLOYERS REQUIRING

EACH DEGREE OF PROFICIENCY

FOR SPECIFIC RECORDED DICTATION SKILLS

Skill	High Proficiency	Average Proficiency	Low Proficiency	Not Required
Typing from recorded dictation	80%	10%	10%	-
Determining layout-finished product	80%	10%	10%	-

Table 3

EMPLOYERS REQUIRING

EACH DEGREE OF PROFICIENCY

FOR SPECIFIC SHORTHAND SKILLS

Skill	High Proficiency	Average Proficiency	Low Proficiency	Not Required
Taking shorthand notes from verbal dictation	-	20%	30%	50%
Transcribing shorthand notes	-	20%	30%	50%

Table 3 shows, 50% of employers did not require shorthand as a skill for a secretarial position, while 30% required a low degree of proficiency. Only 20% of employers required an average degree of proficiency. No employer required a high degree of proficiency in shorthand for secretarial employment.

The shorthand speed required by employers was also surveyed. Only three employers had a specific amount of words per minute required as indicated by two employers who required taking shorthand at 80 words per minute and one employer who required the skill at 120 words per minute.

Word processing skills were required by all secretarial employers. Table 4 indicates that a majority of employers required a high degree of proficiency with setting up a diskette (80%), keyboarding (80%), and editing copy (90%). The remainder of employers required an average degree of proficiency for these skills. There were no employers who required a low degree of proficiency in word processing skills, and there were no employers who did not require these specific skills at all.

Table 4

EMPLOYERS REQUIRING

EACH DEGREE OF PROFICIENCY

FOR SPECIFIC WORD PROCESSING SKILLS

Skill	High Proficiency	Average Proficiency	Low Proficiency	Not Required
Setting up diskette/tape	80%	20%	-	-
Keyboarding	80%	20%	-	-
Editing copy	90%	10%	-	-

Table 5

EMPLOYERS REQUIRING

EACH DEGREE OF PROFICIENCY

FOR SPECIFIC COMPUTER SKILLS

Skill	High Proficiency	Average Proficiency	Low Proficiency	Not Required
Entry of data	50%	50%	-	-
Manipulation of data	40%	60%	-	-
Knowledge of program(s)	10%	70%	10%	10%

The survey questioned what brand names of word processors local employers used. Responses indicated that these brand names were:

Brand	Number of Companies Using
Apple	1
Compaq	1
Hewlett-Packard	1
IBM	8
Panasonic	1
Wang	3

Some employers utilized more than one brand name of word processing system.

Table 5 shows the degree of computer knowledge proficiency required of secretarial employees. Fifty percent of the employers required a high degree of proficiency for entry of data, and the remaining 50% required an average degree of proficiency for this skill. All employers required an average to high degree of proficiency in the manipulation of data skill. Seventy percent of employers required an average degree of proficiency regarding knowledge of programs, with 10% requiring high proficiency, 10%

requiring low proficiency, and 10% requiring no proficiency in this skill area.

Employers were asked on the survey questionnaire to list the name of computer programs that their secretarial employees used. The following is a tabulation of the responses.

Program	Number of Companies Using
D-base	2
Displaywrite	2
Lotus 1-2-3	5
Multimate	1
System 36	1
WordPerfect	1

All employers required some miscellaneous skills proficiency as shown in Table 6. Ninety percent of employers required a high degree of telephone communication proficiency for their secretarial employees. A high degree of business math computation proficiency was required by 30% of employers, while 50% required average proficiency and 20% required low proficiency. Employers required a high degree of proficiency in Business English (80%) and interpersonal relationships (70%), with the remainder requiring an

Table 6

EMPLOYERS REQUIRING
EACH DEGREE OF PROFICIENCY
FOR MISCELLANEOUS SECRETARIAL SKILLS

Skill	High Proficiency	Average Proficiency	Low Proficiency	Not Required
Business math computation	30%	50%	20%	-
Interpersonal relationships	70%	30%	-	-
Business English	80%	20%	-	-
Telephone communication	90%	10%	-	-
Other: Medical terminology	10%	-	-	90%
Scientific terminology	-	10%	-	90%

average degree of proficiency for these two skill areas (20% and 30% respectively). Ten percent of employers required a high proficiency in a knowledge of medical terminology and 10% required an average proficiency in a knowledge of scientific terminology.

To answer the questions stated in Part B of the survey questionnaire form, employers were asked to write short answers, from their perspective, to two questions. These two questions were as follows:

1. What additional skills would an employee need in order to succeed as a secretary in your organization?

2. If you could offer suggestions for a business school's secretarial training program that would help bridge a gap between secretarial curriculum and the actual work environment, what would you suggest?

In response to the first question, a majority of employers (80%) did list additional skill requirements for secretarial employees. However, there was a diversity of answers, and no response was listed more than once by employers except for one requirement. This response, listed by two employers, was the

requirement for a "positive attitude." Other write-in responses included "professional demeanor", "ability to sell ideas", "punctuality", "ability to follow directions", "good grooming", "organizational skills", "good attendance record", "handle multiple priorities", and "ability to work under pressure."

A majority of employers (60%) responded with a write-in answer to the second question regarding suggestions for a more relevant secretarial science program. "Use of guest speakers" was listed by 10% of employers, and an "internship" program was listed by 50% of employers.

Results of Business School Responses

Specific typing skills required of students receiving a secretarial certificate were listed under Part A of the survey questionnaire along with a scale of degree of proficiency business schools required for each skill. Table 7 shows that 100% of business schools required a high degree of proficiency for typing letters and memos. In addition, 100% of the schools required an average degree of proficiency for statistical typing skills. A high degree of proficiency in typing forms and proofreading work was required by 75% of business schools, while an average degree of proficiency for these two skills was required by the remaining 25%.

Table 7

BUSINESS SCHOOLS REQUIRING
EACH DEGREE OF PROFICIENCY
FOR SPECIFIC TYPING SKILLS

Skill	High Proficiency	Average Proficiency	Low Proficiency	Not Required
Typing letters and memos	100%	-	-	-
Typing manuscripts	25%	50%	25%	-
Typing forms	75%	25%	-	-
Typing from handwritten copy	25%	75%	-	-
Statistical typing	-	100%	-	-
Proofreading completed work	75%	25%	-	-

Typing manuscripts required a high degree of proficiency with 25% of employers, an average proficiency with 50% of employers, and a low degree of proficiency with 25% of employers. Twenty-five percent of employers required a high degree of proficiency in typing from handwritten copy, and 75% of employers required an average degree of proficiency for this skill.

The survey questionnaire also requested information about the typing speed required in order for a student to receive a secretarial certificate from the surveyed school. Fifty percent of the business schools required a typing speed of 50 words per minute, and 50% required a speed of 60 words per minute for a certificate.

All proprietary business schools surveyed required some proficiency in the area of recorded dictation skills. Table 8 shows that the majority of schools (75%) required high proficiency in typing from recorded dictation and 25% required an average proficiency for this skill. Fifty percent of the schools required high proficiency in determining layout of finished product and 50% required an average proficiency for this skill.

Shorthand skill requirements for secretarial certificates from the business schools ranged from a high degree of proficiency to not required. The degree

Table 8

BUSINESS SCHOOLS REQUIRING

EACH DEGREE OF PROFICIENCY

FOR SPECIFIC RECORDED DICTATION SKILLS

Skill	High Proficiency	Average Proficiency	Low Proficiency	Not Required
Typing from recorded dictation	75%	25%	-	-
Determining layout-finished product	50%	50%	-	-

Table 9

BUSINESS SCHOOLS REQUIRING

EACH DEGREE OF PROFICIENCY

FOR SPECIFIC SHORTHAND SKILLS

Skill	High Proficiency	Average Proficiency	Low Proficiency	Not Required
Taking shorthand notes from verbal dictation	50%	25%	-	25%
Transcribing shorthand notes	50%	25%	-	25%

of proficiency requirements was exactly the same for the two specific areas of shorthand: taking shorthand notes from verbal dictation and transcribing shorthand notes into final product. As Table 9 shows, 50% of schools required a high degree of proficiency for both shorthand skills, while 25% required an average proficiency, and 25% did not require these skills.

The shorthand speed required by business schools was also surveyed. Twenty-five percent of the surveyed schools did not have a specific amount of words per minute required for shorthand skills. A majority did have a requirement, with 50% listing a speed of 100 words per minute required, and 25% listing a required speed of 80 words per minute.

Table 10 shows that word processing skills were not required for a secretarial certificate by all business schools. Fifty percent of schools required a high proficiency for setting up a diskette or tape, 25% required an average degree of proficiency, and 25% did not require this skill. A high degree of proficiency was required by 75% of schools for the skills of keyboarding and editing copy, while 25% of the schools did not require these word processing skills.

Table 10

BUSINESS SCHOOLS REQUIRING

EACH DEGREE OF PROFICIENCY

FOR SPECIFIC WORD PROCESSING SKILLS

Skill	High Proficiency	Average Proficiency	Low Proficiency	Not Required
Setting up diskette/tape	50%	25%	-	25%
Keyboarding	75%	-	-	25%
Editing copy	75%	-	-	25%

Table 11

BUSINESS SCHOOLS REQUIRING

EACH DEGREE OF PROFICIENCY

FOR SPECIFIC COMPUTER SKILLS

Skill	High Proficiency	Average Proficiency	Low Proficiency	Not Required
Entry of data	-	75%	-	25%
Manipulation of data	25%	50%	-	25%
Knowledge of program(s)	25%	25%	25%	25%

The survey questioned the proprietary business schools regarding the brand name of word processors that they used to train their secretarial students. Responses indicated that 75% of schools used IBM word processors, and 25% did not list any system because word processing skills were not required by them. No other brand names of word processors were listed as being used by the surveyed schools.

As shown in Table 11, not all schools required computer knowledge skills for a secretarial certificate. Entry of data skills required an average degree of proficiency by 75% of the schools and was not required by 25%. Twenty-five percent of schools required high proficiency in manipulation of data, while 50% required an average degree and 25% did not require this skill. A high proficiency was required for knowledge of programs by 25% of the surveyed schools, an average proficiency by 25%, a low proficiency by 25%, and not required by 25% of the schools.

The proprietary business schools were asked on the survey questionnaire to list specific names of computer programs that their secretarial certificate students used. Seventy-five percent of schools did not list any

specific program name, and 25% listed IBM programs in general.

All schools required some miscellaneous skills proficiency as shown in Table 12. An average degree of proficiency in interpersonal relationships was required by 100% of the schools. Fifty percent of the surveyed schools required a high proficiency in business math, and 50% required an average degree of proficiency in this skill. A high degree of proficiency in Business English was required in 75% of the schools, while 25% required an average degree. Twenty-five percent of schools required high proficiency in telephone communication, 50% an average degree of proficiency, and 25% a low degree of proficiency for this skill.

Part B of the survey form asked the business schools two questions regarding secretarial skills. The respondents were asked to write in answers to the questions from their perspective as a postsecondary proprietary business school. The questions and the responses follow.

To the first question, "What additional skills or curriculum do you require of students in your

Table 12

BUSINESS SCHOOLS REQUIRING
EACH DEGREE OF PROFICIENCY
FOR MISCELLANEOUS SECRETARIAL SKILLS

Skill	High Proficiency	Average Proficiency	Low Proficiency	Not Required
Business math computation	50%	50%	-	-
Interpersonal relationships	-	100%	-	-
Business English	75%	25%	-	-
Telephone communication	25%	50%	25%	-

secretarial certificate program?", 100% of business schools gave a response. Answers were diverse and no response was listed more than once by the schools, except for accounting which was listed by two schools. Other responses included records management, speech, office procedures, and business law.

There was a 100% response to the second question, "If you could receive structured, carefully researched input from local business employers regarding relevant secretarial curriculum for today's work environment, what would your reaction and/or suggestions be"? The answers, which were each worded differently, are as follows: "It would be welcome", "Fine", "Terrific--this would be one of the most valuable tools to use as a guide in development of student skills", and "Yes, this is very much needed."

Comparisons

Information provided by the frequency distributions and tables of this study was used for several comparisons. A comparison was made between the findings of the secretarial course offerings of the postsecondary proprietary business schools in the survey population and the course offerings in the secretarial program of

other studies. Additionally, the secretarial skill requirements reported by employers and business schools in this study were compared to each other on a percentage of total respondents basis and on a mean degree of proficiency basis.

On a percentage of total basis (referring to Tables 1 through 12), there was complete agreement of proficiency requirements between employers and business schools for only two specific secretarial skills. These were typing letters and memos (100% of both employers and schools required a high degree of proficiency), and business math computation skills (50% of both employers and schools required an average degree of proficiency).

Differences existed in all other areas between the requirements that employers had for secretarial skills and the requirements business schools had for these skills in their curriculum. The areas where the greatest differences occurred on a percentage basis (a difference of 50% or more) and the extent of these differences are explained below. Comparisons for the following analyses are shown in Table 13.

High Proficiency Requirements: 80% of employers required a high degree of proficiency for

Table 13

MAJOR AREAS OF DIFFERENCES
IN PROFICIENCY REQUIREMENTS
FOR EMPLOYERS AND BUSINESS SCHOOLS

Skill	High Proficiency		Average Proficiency	
	Employer	School	Employer	School
Statistical typing	80%	-0-	10%	100%
Interpersonal relationships	70%	-0-	30%	100%
Telephone communication	90%	25%	10%	50%
Typing from handwritten copy	80%	25%	20%	75%
Entry of data	50%	-0-	50%	75%
Taking shorthand notes	-0-	50%	20%	25%
Transcribing shorthand notes	-0-	50%	20%	25%

statistical typing, while no business schools required a high proficiency for this skill; 70% of employers required a high proficiency in interpersonal relationship skills, but no schools required a high proficiency for this secretarial skill; 90% of employers required a high proficiency in telephone communication skills and only 25% of schools required a high proficiency; 80% of employers required high proficiency for typing from hand written copy, while 25% of schools required a high proficiency for this skill; and 50% of employers required high proficiency for entry of data, but no business schools required a high degree of proficiency.

Conversely, there was a difference in the percentage of business schools who required a high degree of proficiency for some secretarial skills and the percentage of employers who had such a requirement. This occurred in the area of shorthand skills with 50% of schools requiring high proficiency in both taking shorthand and transcribing notes, while there were no employers who required a high proficiency in shorthand skills.

Average Proficiency Requirements: The areas of greatest difference (50% or more) between employer skill requirements and the skill requirements of business schools appeared in three areas, where a majority of business schools required an average degree of proficiency and employers did not. This occurred for the skills of statistical typing (100% of business schools and only 10% of employers required an average degree of proficiency), interpersonal relationships (100% of schools and 30% of employers required average proficiency), and typing from handwritten copy (75% of schools and 20% of employers required an average degree of proficiency).

Low Proficiency Requirements: There were no large differences (50% or more) between employers and schools in terms of low proficiency requirements for any of the surveyed secretarial skills.

Skill Not Required: There was one area where a high percentage (50%) of employers did not require a specific set of skills for employment, but business schools did require the skills as part of

their secretarial curriculum. This occurred in the area of shorthand skills where half of the surveyed employers did not require the skills of taking shorthand notes and transcribing shorthand notes for employment as a secretary.

Other Proficiency Areas: Only one employer reported a skill requirement for a knowledge of medical terminology, and this required a high degree of proficiency. One employer required a knowledge of scientific terminology with an average degree of proficiency, and one employer reported a skill requirement for typing research reports with a high degree of proficiency. There were no secretarial skills listed on the original survey questionnaire (SSQ) that were not required to some degree of proficiency by both employers and business schools.

There were differences in the response to the section on the survey questionnaire which asked both employers and business schools to list the brand name of word processing equipment that they used. The employers listed six brand names, with IBM word processors being

used by 80% of employers and Wang word processors used by 30%. Some employers indicated that they used more than one brand name. The proprietary business schools listed only one brand name of word processor as being used. Seventy-five percent of schools indicated that they used IBM word processors for their secretarial program, and 25% did not list any brand name because word processing was not part of their secretarial science curriculum.

Another section asked survey recipients to list specific names of computer programs used. Employers listed six computer programs that their secretarial employees used. Lotus 1-2-3 was listed by 50% of employers, and Displaywrite was listed by 20%. The business schools did not list any specific name of computer programs, but 25% listed IBM programs in general.

There was a difference between employers and business schools in typing speed skill requirements. A majority of employers (60%) required a typing speed of 70 words per minute, while 20 % required 60 words per minute, and 20% required 50 words per minute. The typing speed skill requirement of business schools was listed as 60 words per minute by 50% of the schools and 50 words per minute by the remaining 50% of schools. This result

revealed that most employers had a higher typing speed requirement than did the business schools.

A study by Meiss (1985) of business education curriculum involved a broader geographic area (the states of Pennsylvania and New Jersey) of which Harrisburg is a part. The following table compares the secretarial curriculum offerings for adult business education programs in Meiss's study area with the secretarial curriculum offerings of this study in the Harrisburg area.

PERCENTAGE OF SCHOOLS OFFERING
LISTED SUBJECTS IN THEIR SECRETARIAL CURRICULUM

Subject	Meiss Study	Harrisburg Study
Typewriting	79.1	100.0
Shorthand	57.9	75.0
Bookkeeping/Accounting	51.5	50.0
Recorded Dictation	-	100.0
Data Processing	17.7	-
Computer Science	-	75.0
Word Processing	9.0	75.0
Office Procedures	19.2	25.0

Although Data Processing and Computer Science are listed separately in this comparison due to the research design of each study, the course content is probably similar for some aspects of the two subjects. The biggest discrepancy of the comparison lies in the area of Recorded Dictation with 100% of schools in the Harrisburg study requiring the subject as part of secretarial curriculum and no schools in Meiss's study listing this. In addition, the percentage of schools requiring a Word Processing course in the Meiss study is minimal (9%) compared to this study (75%).

A study by Grayson (1983) in the midwest recommended that business educators should emphasize skills sought by employers. Findings from her study identified competencies and knowledge required by employers for a position as a secretary. The study showed specific secretarial skills areas which were of prime concern to employers in her survey. The three highest areas of secretarial concern revealed by employers in Grayson's study are listed on a percentage basis in the following table, in comparison to the ratings for these areas of concern from the Harrisburg study.

COMPARISON OF
EMPLOYER HIGH AREAS OF CONCERN FOR
CERTAIN SECRETARIAL SKILLS

Skill	Grayson Study	Harrisburg Study
Business English	63%	80%
Shorthand	66%	-
Time Management	50%	-

Other Analysis

Additional analysis which also involved a descriptive statistical technique included calculating a mean for specific secretarial skills for employers and for business schools, as shown in Table 14. The average was computed by assigning a numerical value to each of the three degrees of proficiencies as follows: high proficiency equaled 3 points, average proficiency equaled 2 points, and low proficiency equaled 1 point. When a response of "skill not required" had been checked off on a returned survey, it was not included in the averaging process.

On a mean basis, as shown in Table 14, the only points of agreement occurred in the skill areas of typing letters and memos (3.0 mean or a high degree of proficiency required by both employers and schools), and knowledge of computer programs (2.0 or an average degree of proficiency required by both employers and schools).

The closest mean relationship between employer skill requirements and business school curriculum skill requirements appeared in two areas: typing letters and memos (with a mean proficiency of 3.0 for both employers and schools), and knowledge of computer programs (with the same mean of 2.0 for employers and schools). The next closest relationship existed in the skill areas of proofreading completed work, typing from recorded dictation, setting up diskette/tape, editing copy, manipulation of data, and business English where the proficiency requirement mean differed by one-tenth of a point for these skills.

The greatest disparity in the mean relationship of employer skill requirements to business school curriculum requirements appeared in the area of shorthand (both taking dictation and transcribing from notes) with a 1.3 difference in mean degree of

Table 14

EMPLOYER AND SCHOOL

MEAN DEGREE OF PROFICIENCY*

REQUIRED FOR SPECIFIC SKILLS

Skill	Employers	Schools
Typing letters and memos	3.0	3.0
Typing manuscripts	2.6	2.0
Typing forms	2.3	2.8
Typing from handwritten copy	2.8	2.2
Statistical typing	2.7	2.0
Proofreading completed work	2.8	2.7
Typing from recorded dictation	2.7	2.8
Determining layout of finished product	2.7	2.5
Taking shorthand from verbal dictation	1.4	2.7
Transcribing notes into finished product	1.4	2.7
Setting up diskette/tape	2.8	2.7
Keyboarding	2.8	3.0
Editing copy	2.9	3.0
Entry of data	2.5	2.0
Manipulation of data	2.4	2.3
Knowledge of programs	2.0	2.0
Business math computation	2.1	2.5
Interpersonal relationships	2.7	2.0
Business English	2.8	2.7
Telephone communication	2.9	2.0

*Degree of Proficiency: 3=high, 2=average, 1=low

proficiency. This was followed by telephone communication with almost a full point (.9) difference in mean proficiency requirement, and statistical typing and interpersonal relationships with a difference of .7 in mean proficiency requirements for these secretarial skills.

The findings of this study indicate there are differences between the secretarial skill requirements of local major employers and of postsecondary proprietary business schools. A majority of employers did differ from business schools in areas and extent of secretarial skill requirements.

Agreement of proficiency requirements between employers and business schools occurred in only two areas on a percentage of total basis. These skill areas were typing letters and memos (100% of both employers and schools required a high degree of proficiency) and business math computation skills (50% of both employers and schools required an average degree of proficiency). On a mean basis, the only areas of agreement occurred in the skill areas of typing letters and memos (3.0 mean or a high proficiency required by both employers and schools), and knowledge of computer programs (2.0 or an

average degree of proficiency required by both employers and schools).

Except for the skill areas of typing memos and letters, business math computation skills, and knowledge of computer programs, differences existed in all other areas between the requirements employers had for secretarial skills and the requirements business schools had for these skills in their curriculum. The skill areas in which the greatest differences occurred on a percentage basis were statistical typing, interpersonal relationships, telephone communication, typing from handwritten copy, entry of data, taking shorthand, and transcribing shorthand notes. In particular, specific differences were revealed in two secretarial skill areas, typing and shorthand. A majority of employers required a typing speed of 70 words per minute for secretarial employment, while the highest typing speed required by business schools in their secretarial curriculum was 60 words per minute. Additionally, shorthand skills were not required for secretarial employment by half the employers, yet half of the business schools surveyed had a high proficiency requirement for shorthand skills.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Among the major issues facing our country today are the impact of high technology and the growing concern regarding the quality and appropriateness of the education and training of our work force. Business and industry need more responsive educational institutions to meet the demands of the labor market and world economic conditions. Some elements regarding productivity and employment problems are related to the inadequate preparation students receive from our educational establishments.

Educators and researchers, as well as businessmen, have recommended closer cooperation between employers and the education community. Included in this recommendation for increased cooperation was the suggestion of a more extensive curriculum-related rapport between business schools and business employers.

Postsecondary business educators are being urged to evaluate and update their business education program. Despite office automation, the number of secretaries in our country has increased to over four million, and the United States Department of Labor predicts there will be an increased need for their number into the next decade. However research shows that only a small percentage of secretarial workers have the skills which the automated office demands. Word processing and computer equipment have brought much change to the way secretaries perform their work.

Since one function of postsecondary education is to prepare the work force to meet the nation's job requirements, effectiveness in this area requires sound educational programs for developing marketable skills. However in the area of secretarial training and employment, there appears to be a dichotomy between the secretarial curriculum of postsecondary proprietary business schools and the requirements of businesses for secretarial employees. It was suggested that examination and adjustments to secretarial science curriculum be made on a local level to more readily meet the needs of local employers. Therefore the purpose of this study was to analyze employer secretarial skill requirements and the secretarial

curriculum skill requirements of postsecondary business schools, in a local geographical area.

A review of relevant literature discussed futurists who have been documenting trends which they claim are shifting us from an industrial age to an information age. Application of electronic technology is expected to permeate organizations. To meet related changes, the business sector and education community will need to explore avenues of greater cooperation in developing an appropriately educated workforce. Technology is rapidly changing the nature of work in all sectors of the economy. This can mean a change in the training required to function effectively in some types of office employment such a secretarial work. The skill requirements for the job of secretary have been upgraded by the addition of word processing and computer equipment to the office.

Business educators are being told that changes need to be made to the secretarial curriculum in order for students to gain relevant exposure and be ready for the marketplace. Recent economic and technological changes, as well as the very nature of work, have forced business institutions to redirect themselves, and the education community is advised

to offer a curriculum that responds to specific employer needs and goals.

However, when restructuring business education curriculum, an unresearched or haphazard approach is to be avoided. An integrated and dynamic approach to curriculum design and redesign is required in order to bridge the gap between what is being taught in academic institutions and what businesses require from graduates. One possible way to begin to achieve this is through a well structured survey questionnaire type of research project.

It was recommended that part of a secretarial science curriculum should include hands-on training with office equipment which can be justified in terms of job outcomes. Additionally, secretarial curriculum should be take into account the requirements of local employers. Although business has often dealt with a secretarial labor market shortage by lowering employment standards, employers are increasingly finding that lesser quality candidates cannot meet the demands of the new technology secretarial position.

Postsecondary business education programs will continue to be needed as technological advances come about. The development or increased use of employer/school related

curriculum planning can make a contribution to secretarial science programs. Students would benefit by being more adequately prepared for secretarial positions, proprietary business schools would benefit by being able to offer a more relevant curriculum, and employers would have a larger pool of appropriately trained secretarial candidates from which to select.

The research design for this study included the selection of a population, the development of a survey questionnaire for collection of data, and the use of descriptive statistical techniques for data analysis. A local geographical area was selected for the study because findings from a literature search suggested this, and because secretarial graduates of postsecondary proprietary business schools usually seek employment in the location in which they received their training.

The study specifically sought to answer the questions:

1. In the greater Harrisburg area, is there is difference between the secretarial skill requirements of major employers and the skill requirements of the secretarial curriculum of postsecondary proprietary business schools?

2. If so, in what area(s) does the difference lie?

3. If so, to what extent is there a difference?

The limitations of the study involved a small, local population. The employer population consisted of the ten major non-government employers as identified by the Greater Harrisburg Area Chamber of Commerce statistics. The school population included the four postsecondary proprietary business schools in the Harrisburg area who offered a secretarial certificate program.

A questionnaire form, called the Skills Survey Questionnaire (SSQ), was developed for this study to gather information from both employers and business schools. The questionnaire was formulated by a diverse panel of personnel who had individual expertise regarding the topic. Prior to finalization of the questionnaire, it was field tested outside the geographical study area.

To allow for more expansive responses, the Skills Survey Quetionnaire was divided into two parts. In Part A, each question was worded so the answers would provide basic

information which could be tabulated to reveal whether or not there was a difference in employer and business school skill requirements. Part B of the questionnaire asked respondents to write in short answers to two questions regarding secretarial skills and curriculum. Questions on the Skills Survey Questionnaire pertained to the secretarial skill requirements of both employers and business schools. The specific items listed on the questionnaire were chosen because they were skills which are characteristically expected in secretarial performance as revealed by a literature serach, an informal survey of employers, and a review of business school catalogs. The same questionnaire form was used for both segments of the population with minor changes in wording to make one instrument applicable to employers and one applicable to business schools.

This questionnaire was mailed to the employer and school population and was returned to the researcher by mail through an anonymous response procedure. One hundred percent of the surveys were returned by both segments of the survey population. Data from the returned surveys was recorded, tabulated, and analyzed. This involved the development of a frequency distribution for both segments of the survey population. Analysis included the

comparison of results of the employer survey responses with the results of the business school survey responses. The following are conclusions drawn from the tabulation and analysis work.

Conclusions

The findings of this study indicate there are differences in the skill requirements of local major secretarial employers and the secretarial curriculum skill requirements of postsecondary proprietary business schools. A majority of employers did differ from business schools in areas and extent of secretarial skill requirements.

On the basis of total employers and total business schools, percentage calculations showed that there was total agreement of proficiency requirements between employers and business schools for only two specific secretarial skills. These were typing letters and memos (100% of both employers and schools required a high degree of proficiency), and business math computation skills (50% of both employers and schools required an average degree of proficiency. On the basis of calculations of means, the only places of agreement occurred in the skill areas of typing letters and memos with a high proficiency required by both employers and business schools (3.0 mean), and in knowledge of computer programs

with an average degree of proficeincy required by both employers and business schools (2.0 mean).

Differences existed in all other areas between the requirements employers had for secretarial skills and the requirements business schools had for these skills in their curriculum. A majority of employers had a high degree of proficiency requirement for the skills of statistical typing, interpersonal relationships, telephone communications, typing from handwritten copy, and entry of data. However, a majority of business schools did not have a requirement of a high degree of proficiency for these skills. Only twenty-five percent of the surveyed schools had a high proficiency requirement for telephone communication skills and typing from handwritten copy.

Business schools did have a high proficiency requirement for shorthand skills while there were no employers who had a high proficiency requirement for these skills. Although fifty percent of the schools required high proficiency in both taking shorthand and transcribing shorthand notes. However, one half of the surveyed employers did not require any shorthand skills for employment as a secretary with their organization.

The areas of greatest difference (more than fifty percent), in which the skill requirements of business schools were greater than employer requirements, appeared in three areas, where a majority of schools required an average degree of proficiency and employers did not. This occurred for the skills of statistical typing (100% of business schools and only 10% of employers required an average degree of proficiency), interpersonal relationships (100% of schools and 30% of employers required average proficiency), and typing from handwritten copy (75% of schools and 20% of employers required an average degree of proficiency).

There were differences in the responses to the section on the survey questionnaire which asked both employers and business schools to list the brand names of word processing equipment that they used. The employers used six brand names, with IBM word processors being used by 80% of employers and Wang word processors by 30%. Some employers indicated that they used more than one brand name. A majority (75%) of the business schools indicated that they used one brand name word processor which was IBM.

Another section asked survey recipients to list specific names of computer programs used. Employers listed six

computer programs that their secretarial employees used with Lotus 1-2-3 being listed by 50% of employers, and Displaywrite by 20%. The business schools did not list any specific name of computer programs.

In comparing this study of secretarial science curriculum to the studies of Meiss (1985) and Grayson (1983), it was found that differences existed in the results obtained from the larger geographical areas of their studies and those obtained from the local geographical area of this study. In the Meiss study of secretarial curriculum, of the eight compared subjects, only one subject (accounting) had a similar percentage of schools in both geographical study areas offering the course. There was a discrepancy in all other subject comparisons, particularly with recorded dictation not being offered in the Meiss study area. This subject was offered by all Harrisburg area surveyed schools, and most notable, it was required by all local major employers in the Harrisburg area. The incidence of word processing and computer science courses offered in Meiss's study was much less than that offered in the local study in Harrisburg. Yet all employers in the Harrisburg area required proficiency in both word processing and computer science for their secretarial employees.

Grayson's secretarial study listed business English, shorthand, and time management as the three secretarial skill areas of most concern to employers in her study area.

However, in the Harrisburg area, only one of these secretarial skills, business English, was of major concern to employers. Thus, both the Meiss and Grayson studies comparison indicated that curriculum based on a survey of a large geographical area may not meet the needs of local employer requirements for secretarial skills.

Some conclusions can be drawn from Part B of the survey questionnaire in which respondents were asked to self-report answers to two questions. In response to the first question, "What additional skills would an employee need in order to succeed as a secretary in your organization?", there were multifarious answers from employers. Although there was no consensus among employers regarding a specific skill, a majority of employers did indicate that they required more from their secretarial employees than just rote or mechanical skills, by listing such skills as a "positive attitude." The responses of the proprietary business schools to this question regarding what additional skills or curriculum they require was also diverse, and their requirements were for some less affective skills than

employers stated, such as accounting and business law. In Part B, there was no one specific secretarial skill requirement which was listed by both employers and business schools. These responses show further differences in requirements of employers and business schools for additional skills other than those listed in Part A of the survey questionnaire.

The second question in Part B of the SSQ was formulated to allow both employers and business schools to provide input from their particular perspectives. Since the wording necessarily varied for the two segments of the survey population, a comparison could not be made for this second question. However, the answers to this question are relative to this study and hence are discussed here. Employers were asked, "If you could offer suggestions for a business school's secretarial training program that would help bridge the gap between secretarial curriculum and the actual work environment, what would you suggest?" In response to this question, 50% of employers stated that an "internship" program should be added to the secretarial curriculum requirements of business schools. Postsecondary proprietary business schools were asked, "If you could receive structured, carefully researched input

from local business employers regarding relevant secretarial curriculum for today's work environment, what would your reaction and/or suggestions be?" There was a unanimous positive response by the business schools, indicating that they favored such input.

It can be concluded from this study that employer secretarial skill requirements do differ from the skill requirements in the secretarial curriculum of postsecondary proprietary business schools in the greater Harrisburg area. The differences occurred in the specific skill requirements themselves and in the extent (proficiency) of requirements. Employers required a higher degree of proficiency than business schools in the following skill areas: statistical typing, interpersonal relationships, telephone communications, typing from handwritten copy, and entry of data. Employers also required a high typing speed of 70 words per minute, while the highest typing speed required by business schools was 60 words per minute. Additionally employers did not require a high proficiency for shorthand skills but half of the business schools did so.

Recommendations

On the basis of the findings of this study and a review of relevant literature, the following recommendations are offered. These recommendations can also serve as the base for a guideline for the secretarial curriculum of postsecondry proprietary business schools in the local area.

1. Postsecondary proprietary business schools in the greater Harrisburg area should incorporate an internship program into their secretarial program, assigning students to field experiences in the "real world."

2. The typing speed requirements for the secretarial certificate programs of postsecondary proprietary business schools in the greater Harrisburg area should be increased to 70 words per minute.

3. The curriculum requirements for shorthand skills should be decreased by some proprietary business schools in the Harrisburg area since employers either do not

require a high degree of proficiency for this skill or do not require the skill at all.

4. The proprietary business schools in the Harrisburg area who are not offering word processing and computer skills as part of their curriculum, will need to add these requirements in order to meet employer secretarial skill requirements.

5. Since almost all employers in this study required a high degree of proficiency in telephone communication skills, business schools need to increase their proficiency requirements for this skill.

6. Other skill areas where a majority of the surveyed employers required a high degree of proficiency and where business schools need to increase their skill requirements are statistical typing and interpersonal relationships.

7. While typing, recorded dictation, and word processing are the skill areas that seem to dominate employer secretarial requirements for this local study area,

these skills should not be considered to the exclusion of others. An awareness of all secretarial skills and qualities (including the affective domain) sought by employers should be incorporated into the curriculum.

8. Employers should be met with or contacted on a regular, organized basis to provide input on new trends or procedures occurring for secretaries working in the actual office environment. This can be accomplished through the establishment of an employer/business school task force for curriculum development.

Recommendations for Further Study

1. Additional research relative to employer skill requirements and the curriculum of postsecondary proprietary business schools should be conducted in reference to secretarial skills in other local geographical areas.

2. On the basis of the results of such research, business schools in these other surveyed regions may need to study and refine their secretarial science curriculum in order to meet local employer skill requirements.

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Appendix A

Sample of Cover Letter to Employer

1119 Elizabethtown Road
Elizabethtown, PA 17022
January 7, 1988

Mr. Michael Richards
Director of Human Resources
Columbia Corporation
2139 Pine Street
Harrisburg, PA 17023

Dear Mr. Richards:

I am a student at Temple University doing a research project geared toward supplying local employers with better qualified secretarial candidates and am using the attached survey to gather some information. By being aware of the current secretarial skill requirements of employers, I will be able to develop a relevant secretarial science curriculum for use by local business schools. Hopefully, this will provide area businesses with a larger group of skilled secretarial graduates from which they may select employees.

In order to keep the survey as anonymous as possible, please do not write your name or the name of your organization on the survey itself. Simply fill out the survey, and return it to me in the self-addressed, attached envelope. However, so that I may have an indication that your organization has participated and can be sent a copy of the project results, please mail the enclosed postal card separately, after your questionnaire has been returned.

I appreciate your help in the area of secretarial skill requirements and look forward to your return of the survey. Thank you!

Sincerely yours,

Ruth M. Mott

Attach.

Appendix B

EMPLOYER SURVEY

SECRETARIAL SKILL REQUIREMENTS

PART A - Place a check on the line which most closely corresponds to the degree of proficiency your organization requires for employment.

	Degree of Proficiency Required			
I. Typing Skills	high	average	low	skill not required
Typing letters and memos	—	—	—	—
Typing manuscripts	—	—	—	—
Typing forms	—	—	—	—
Typing from handwritten copy	—	—	—	—
Statistical typing	—	—	—	—
Proofreading completed work	—	—	—	—
Other (specify) _____	—	—	—	—
Required words per minute (circle one) 50 60 70 80				
II. Recorded Dictation				
Typing from recorded dictation	—	—	—	—
Determining layout of finished product	—	—	—	—
Other (specify) _____	—	—	—	—

	Degree of Proficiency Required			
	high	average	low	skill not required
III. Shorthand				
Taking shorthand notes from verbal dictation	—	—	—	—
Transcribing shorthand notes into final product	—	—	—	—
Other (specify) _____	—	—	—	—
Required words per minute (circle one) 80 100 120 140				
IV. Word Processing				
Setting up diskette/tape	—	—	—	—
Keyboarding	—	—	—	—
Editing copy	—	—	—	—
List brand name of system(s) used _____				
Other (specify) _____	—	—	—	—
V. Computer Knowledge				
Entry of data	—	—	—	—
Manipulation of data	—	—	—	—
Knowledge of program(s)	—	—	—	—
List name of program(s) used _____				
Other (specify) _____	—	—	—	—

	Degree of Proficiency Required			
	high	average	low	skill not required
VI. Miscellaneous Skills				
Business math computation	—	—	—	—
Interpersonal relationships	—	—	—	—
Business English	—	—	—	—
Telephone communication	—	—	—	—
Other (specify) _____	—	—	—	—
_____	—	—	—	—

PART B - Please answer briefly (use reverse side if necessary).

What additional skills would an employee need in order to succeed as a secretary in your organization?

_____

_____

_____

If you could offer suggestions for a business school's secretarial training program that would help bridge the gap between secretarial curriculum and the actual work environment, what would you suggest?

_____

_____

_____

Appendix C

Sample of Cover Letter to Schools

1119 Elizabethtown Road
Elizabethtown, PA 17022
January 7, 1988

Ms. Rita Smith
Director of Education
Lancaster Business School
880 Derry Street
Harrisburg, PA 17117

Dear Ms. Smith:

I am a student at Temple University doing a research project geared toward supplying employers with better qualified secretarial candidates. The project involves investigating the relationship between secretarial science curriculum and the secretarial skill requirements of employers.

Because of your expertise in the area of postsecondary business education, I need your input on the attached survey questionnaire involving secretarial science curriculum. In order to keep the survey as anonymous as possible, please do not write your name or the name of your organization on the survey itself. Simply fill out the survey, and return it to me in the self-addressed, attached envelope. However, so that I may have an indication that your organization has participated and can be sent a copy of the project results, please mail the enclosed postal card separately, after your questionnaire has been returned.

I appreciate your help in the area of secretarial skill requirements and look forward to your return of the survey. Thank you!

Sincerely yours,

Ruth M. Mott

Attach.

BUSINESS SCHOOL SURVEY

SECRETARIAL SKILL REQUIREMENTS

PART A - Place a check on the line which most closely corresponds to the degree of proficiency your school requires for a certificate.

	Degree of Proficiency Required			
	high	average	low	skill not required
I. Typing Skills				
Typing letters and memos	—	—	—	—
Typing manuscripts	—	—	—	—
Typing forms	—	—	—	—
Typing from handwritten copy	—	—	—	—
Statistical typing	—	—	—	—
Proofreading completed work	—	—	—	—
Other (specify) _____	—	—	—	—
Required words per minute (circle one) 50 60 70 80				
II. Recorded Dictation				
Typing from recorded dictation	—	—	—	—
Determining layout of finished product	—	—	—	—
Other (specify) _____	—	—	—	—

Degree of Proficiency Required

	high	average	low	skill not required
III. Shorthand				
Taking shorthand notes from verbal dictation	—	—	—	—
Transcribing shorthand notes into final product	—	—	—	—
Other (specify) _____	—	—	—	—
Required words per minute (circle one) 80 100 120 140				
IV. Word Processing				
Setting up diskette/tape	—	—	—	—
Keyboarding	—	—	—	—
Editing copy	—	—	—	—
List brand name of system(s) used _____				
Other (specify) _____	—	—	—	—
V. Computer Knowledge				
Entry of data	—	—	—	—
Manipulation of data	—	—	—	—
Knowledge of program(s)	—	—	—	—
List name of program(s) used _____				
Other (specify) _____	—	—	—	—

Degree of Proficiency Required

VI. Miscellaneous Skills	high	average	low	skill not required
Business math computation	—	—	—	—
Interpersonal relationships	—	—	—	—
Business English	—	—	—	—
Telephone communication	—	—	—	—
Other (specify) _____	—	—	—	—
_____	—	—	—	—

PART B - Please answer briefly (use reverse side if necessary).

What additional skills/curriculum do you require of students in your secretarial certificate program?

_____

_____

_____

If you could receive structured, carefully researched input from local business employers regarding relevant secretarial curriculum for today's work environment, what would your reaction and/or suggestions be?

_____

_____

_____

Appendix E

Postal Card

The following organization has returned the secretarial skills survey, and a copy of the results should be mailed to:

Name _____

Organization _____

Address _____

_____

Appendix F

Follow-up Letter to Employers

1119 Elizabethtown Road
Elizabethtown, PA 17022
February 1, 1988

Mr. Gary Miller
Human Resources Manager
Harsco Corporation
134 Hartford Road
Harrisburg, PA 17017

Dear Mr. Miller:

Last month, I mailed you a letter and survey questionnaire regarding skills required for secretarial employment with your organization. Since I have not received the postal card indicating that you returned the survey, I am assuming something was misplaced (or lost in the mail) and am enclosing another survey and postal card.

I am a student at Temple University doing work in the area of secretarial science curriculum. The attached survey information will help me develop relevant secretarial training for students who will be seeking employment in organizations such as yours. Would you please fill in the attached survey and return it to me in the attached self-addressed, stamped envelope? The postal card should be mailed separately and will indicate to me that your organization has responded and can receive a copy of the survey results.

If you wish to contact me by telephone, you may do so at (717) 367-9196. Thank you in advance for helping me with this project.

Sincerely yours,

Ruth M. Mott

Attach.

Appendix G

SAMPLE COURSE DESCRIPTION FOR SECRETARIAL SUBJECTS

Typewriting I (Beginning) - The objectives of this course are to develop touch control of the keyboard and proper typing techniques, to build speed and accuracy skill and provide practice in applying those basic skills to the production of letters, tables, reports and other communications. A minimum speed of 35 words per minute is the speed goal.

Typewriting II (Intermediate) - The course continues the development of basic typing skills and emphasizes the production of various kinds of business correspondence, tabulations, manuscripts and forms from unarranged and draft copies. A minimum speed of 45 words per minute is the speed goal.

Typewriting III (Advanced) - This course further defines the student's speed and accuracy skills and focuses heavily on the production of a wide variety of business communications directly related to the students' field of study. A minimum speed of 55 words per minute is the speed goal.

Shorthand - Shorthand theory is presented with emphasis on acquiring a smooth style of writing with proper proportion and legibility. Included is the use of shorthand to record oral dictation and the transcription of this recorded material.

Machine Transcription - This course includes the typing of letters, manuscripts, and memorandums from recorded dictation.

English - A review of the mechanics of English, to strengthen the student's spelling, vocabulary, grammar, and to learn how to communicate more effectively through the written word.

Business Mathematics - This course reviews fundamental mathematical operations and presents techniques to develop speed and accuracy when using calculators. Topics include discounts, payroll, insurance, interest, and depreciation.

Word Processing - The terminology and concepts related to word processing are presented in this course. Also included are equipment orientation, keyboarding, and the production of business documents.